

C309



CONCRETE SAW

Model C309

Parts List

Operating Instructions

UNCRATING AND ASSEMBLY: Remove saw from crate and assemble as follows:

1. Attach front pointer to saw by tightening pivot belt. Insert handles.
2. Fill battery with electrolyte.
3. Retighten all belts & hardware after first 4 hours.

WARNING

The electrolyte is *Sulfuric Acid*. READ and OBSERVE all instructions and safety precautions on container. Wear safety glasses or goggles while handling and pouring the electrolyte. The electrolyte should be added to the battery in an area where running water is quickly available for rinsing should it come in contact with the body. Before disposing of container, empty and rinse thoroughly with water.

HYDRAULIC SYSTEM: Make sure hydraulic reservoir is filled within 1/2 of filler top with cylinder fully retracted.

ENGINE: Be sure oil is filled to the proper level. Fill the fuel tank with regular gasoline. When the saw is equipped with a blade saver switch, the button on the blade saver switch MUST be pushed in before starting the engine. **# 2 DIESEL FUEL**

For instructions on starting, warm-up and break-in of engine, refer to the Engine Instruction Book.

WATER SUPPLY: Diamond blades can be destroyed instantly if run without water. Therefore, provide a reliable and adequate supply of water. If water pump is not used, connect feed hose to coupling on left of cowl.

OPERATION: The best cutting speed and economy can be obtained by following the instructions listed in this section and by selection of the right blade for the job. Your local Clipper dealer or Clipper Area Market can provide accurate blade recommendations to meet all cutting requirements.

SAFETY PRECAUTIONS

IMPORTANT—The following safety precautions must be observed.

1. Before mounting any blade on the saw, the blade should be inspected for damage which may have occurred during shipment or handling.
2. The blade shaft collars and arbor should be cleaned and examined for damage before mounting blade.
3. Blade must be properly fitted over arbor and drive pin. Drive pin must project through hole in blade and into collar.
4. Blade shaft nut must be tightened securely against outside blade shaft collar. When tightening blade shaft nut, spark plug should be disconnected or shaft lock pin used.
5. The blade must be operated within the specified maximum operating speed listed on the blade. Blade shaft speeds provided are listed below:

Full Throttle Operating Condition	BLADE SHAFT RPM			
	Engine RPM	Blade Size		
No Load	2350	14"	18"	24"
		2800	2000	1570

6. Adequate coolant must be used for wet cutting abrasive and all diamond blades.
7. Blade guard must be in place when saw is running. Always use proper size blade guard for the size blade being used.
8. The operator should wear safety glasses.
9. When starting the saw, the operator should stand outside the path of the blade.

10. If for any reason the saw stalls in cut, raise blade out of cut and check outside blade-shaft collar and nut for tightness before restarting engine. Use care when resuming a cut. Make certain that blade is in alignment with previous cut.
11. During cutting, do not exert excess side pressure on the handles as a method of steering. Do not force the blade into material by lowering the blade too fast or by propelling saw too fast.

STARTING ENGINE: Disengage clutch, and place control handle in neutral.

When saw is equipped with a *blade-saver switch*, the button on the blade saver switch must be pushed in before starting engine.

For instructions on starting and warm-up of engine refer to Engine Instruction Book.

After engine warm-up, always operate at full throttle.

ALIGN SAW WITH MARKED LINE: To turn and position saw, lift rear wheels by means of the maneuvering handles. IMPORTANT - Do not tilt saw too far forward to keep blade from contacting concrete.

WET CUTTING: Turn on water at source and use water valve to control flow of water to blade. Be sure that both sides of the blade are getting an adequate flow of water, a minimum of 2 gallons per minute.

LOWER BLADE INTO CONCRETE: Lower blade carefully into concrete by pushing on raise and lower lever.

SPEED CONTROL LEVER: The speed control lever is located in the center of the cowl. To make the saw move forward, push the lever. To make the saw move in reverse, bring control handle back against stop, then apply slight pressure to the left as you pull control lever towards you. The further back the handle is pulled, the faster the saw will move in reverse. After backing up the desired distance, push the lever forward to about 3 or 4 on speed scale, then pull it back to neutral.

CLUTCH LEVER: The clutch lever is located on the left side of cowl to the rear of gas tank. Pushing this lever to the left and into slot disengages the clutch and allows for pushing the saw or stopping it while it is moving at slow speed or towing it.

NOTICE

Do not engage or disengage the clutch while forward speed is over 8 feet per minute.

The clutch is re-engaged by moving the handle forward and towards the right.

MAINTENANCE: (Engine) - Refer to Engine Instruction Book for maintenance instructions. The following items are particularly important.

1. Operate engine at proper operating speed. See Engine Speeds listed in Safety Precautions. DO NOT alter speed or govern setting.
2. Check crankcase oil daily with engine level.
3. Use regular grade gasoline. **# 2 DIESEL FUEL**
4. Clean air cleaner daily.
5. Keep air passages clean. Cooling fan and air passages will become caked with cutting sludge which can cause serious overheating.

BATTERY: The water level in the battery should be checked weekly. When adding water use distilled water only. Periodically clean corrosion and dirt from top of battery. Make sure the cable connections are clean and make good contact with battery post.

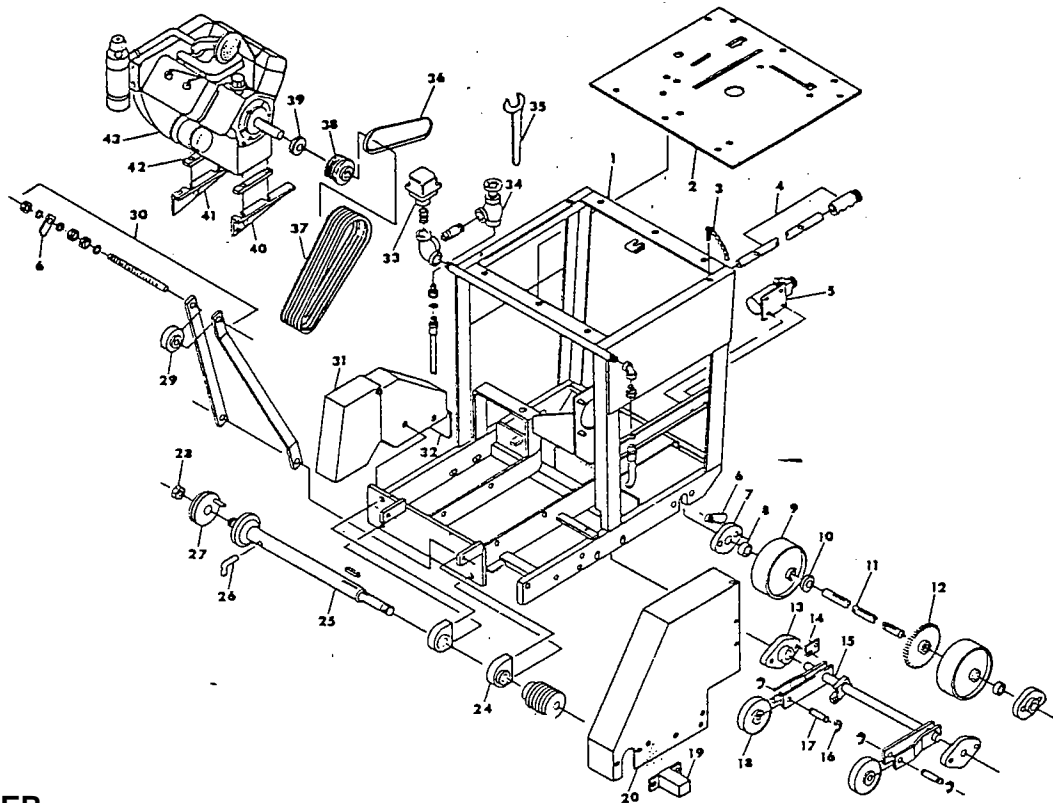
V-BELTS: The high quality V-Belts used on Clipper Saws require very little adjustment. After 4 hrs. of operation, check and tighten the belts as required. CAUTION - Do not overtighten belts, as damage will occur to the belts and bearings, resulting in shortened life. Belts that are too loose will cause undue slippage and short life. When installing new belts, do not attempt to stretch over pulleys.

BLADE SHAFT BELTS: When belts require replacements, ALWAYS use a "matched set" of Clipper Premium V-Belts. Do Not replace single belts.

SELF-PROPELLING UNIT BELT: When belt requires replacement, always use a Clipper Premium Belt.

ON/OFF SWITCH

104332



NEW POINTER

2 108696

1 108694

2 9052068

ITEM NO.	DESCRIPTION	PART NO.
1	MAIN FRAME WELDMENT	108100
2	COWL WELDMENT	108426
3	PIN & CHAIN ASSEMBLY	107791 123180
4	MANEUVERING BAR ASSY (INC.	107315
5	WATER PUMP ASSEMBLY	107744 108355
	SEAL KIT FOR WATER PUMP	107523
6	POINTER	104588
7	BEARING	108205
08	SPACER	108240
9	REAR WHEEL	108268
10	SET COLLAR	101136
11	REAR AXLE	108248
12	SPROCKET	107160
13	PIVOT BEARING	121055
14	BEARING LOCATOR	108291
15	FRONT AXLE WELDMENT	212511
16	RETAINING RING	108233
17	AXLE	101204
18	FRONT WHEEL	107611
19	SHAFT GUARD	108261
20	BELT GUARD	101088
21	SWIVEL HOSE SPUD	402589 106407
22	HOSE ASSEMBLY	122584
23	BLADE SHAFT PULLEY	108204
24	BLADE SHAFT BEARING	108208
25	BLADE SHAFT & COLLAR ASSEMBLY	107277
26	BLADE SHAFT LOCK	102318
27	LOOSE COLLAR	105357 105376
28	NUT L.H.	

ITEM NO.	DESCRIPTION	PART NO.
29	POINTER WHEEL	108412
30	FRONT POINTER ASSEMBLY	108409
31	BLADE GUARD ASSEMBLY - 14" STD	108305
	BLADE GUARD ASSEMBLY - 14" L.H.	107026
	BLADE GUARD ASSEMBLY - 18"	107028
	BLADE GUARD ASSEMBLY - 24"	105362
32	SPLASH GUARD ASSEMBLY	122345
33	BLADE SAVER SWITCH	109864 122193
34	WATER COCK	107846
35	WRENCH	105377 122149
36	ACCESSORY BELT 3L 430C	OBS
37	Consult Sticker for drive belts or used with engine sheave	
	6.0 OD	108215
	5.0 OD, 4.12 OD, 3.35 OD	108219
	3.65 OD, 2.8 OD	108217
38	Engine sheave OD	
	6.00	108200
	5.00	108465
	4.12	OBS 104480
	3.65	108466
3.35	108209	
2.80	OBS 108467	
39	ACCESSORY PULLEY	104346
40	ENGINE RAIL WELDMENT	108405
41	ENGINE RAIL	108404
42	ENGINE SPACER - 24"	108422
43	ENGINE	108398

*For S/N L0433 and up see page 2.

TRANSMISSION: The fluid level must be maintained to the cold line when the transmission is cold. Add automatic transmission fluid as required to maintain this level. The transmission does not require periodic changes.

- D ADJUSTMENT:** To check and adjust for creep:
- Engage clutch
 - Full speed control handle lock to neutral (against stop).
 - Engine at full throttle.
 - Observe output sprocket on transmission.
 - If sprocket moves saw will creep and it must be adjusted.
 - Adjust neutral by turning cable and nuts on control arm link to transmission.

CHAIN ADJUSTMENT: The chains should be inspected periodically making sure they are tight and correctly aligned (not overtightened) adjustment slots are provided for moving jackshaft, transmission and clutch fork to obtain correct chain adjustment.

HYDRAULIC SYSTEM: The entire hydraulic system and fluid must be kept clean. Anytime a hose is disconnected or any repair work done on system, KEEP IT CLEAN.

- Drain and replace hydraulic fluid once each year. Be sure to drain all fluid from system. Fill tank to 1/2" above bottom of ledge when raising cylinder is retracted and fluid is cold. This will require 8 1/2 pints when system is drained completely.
- Remove the build-up of dirt and sludge from raising cylinder rod frequently.

WATER PUMP: The water pump is sealed with sealed bearings and requires no lubrication.

CAUTION — During freezing weather operations, be certain to drain all water from pump and water lines at end of days' operation. Before starting the pump in cold weather, in preparation for a day of cutting, it is recommended the water pump be started before the engine to make sure it is operating freely.

POINTER ADJUSTMENT: To keep side movement out of front pointer, keep pointer support pivot points tight at the frame. To take play out of pointer, loosen nut, tighten set screw and retighten nut. It is necessary the pointers are kept in alignment with the blade. Re-check occasionally by the following steps:

- Using a straight edge, carefully mark a line 12 feet long on smooth level concrete.
- Place saw on line, lower blade and center it on line.
- Measure from each end of the saw frame to the line to be certain the saw is parallel with line.
- With blade centered on line and frame parallel to line, lower pointer to line. Reset as required.

OPTIONAL ACCESSORY:

108053, Lifting Bail

Provides Instructions and hardware for installing Lifting Bail.

ADJUSTMENTS FOR SAWING STRAIGHT LINE: If the saw tends to lead off it may be steered somewhat by applying pressure to one or the other of the handles. However, in some critical aggregates, it may become impossible to hold the saw in a straight line by steering. If such a condition exists, the following adjustments may be made.

- Raise the cutting head as high as necessary for blocking.
- Place a block under the nose (*front frame*) and lower saw so it rests on the block, taking the weight off the front wheels.
- Loosen the right hand pivot bearing that supports the front wheel assembly.
- To make saw go more to the left (*as observed from handle end*) move the pivot bearing forward. To go more to the right, move it rearward. The brace which is located on the rear bolt on the inside of the frame must be moved to the proper position to keep the axle from slipping backwards.
- Tighten bearing mounting bolts.
- Raise the saw, remove the block and perform a trial cut. If any additional correction is needed, repeat the above procedure.
- After the above adjustment, be certain all four wheels are in contact with the ground. If correction is needed, loosen the left hand pivot bearing and adjust up or down with adjusting screw.

LUBRICATION

ITEM	FREQUENCY	LUBRICATION REQ.
Engine	See Engine Instructions	
Transmissions, Hydraulic System	Check Daily	Automatic Trans. Fluid
Drive Chain, Control, Lift Cylinder Pivot Points	Clean & Lube Daily	Light Oil
Blade Shaft Bearings	Lube Daily	Multi-Purpose Grease
Rear Axle Brgs. Pivot Axle Brgs. Front Wheels Clutch Keys Clutch Washers Jackshaft Brgs.	Lube Weekly	Multi-Purpose Grease

ORDERING INFORMATION:

- List model number and serial number of machine.
- List part number and description of part (*not Item Number*).
- Whenever alternate parts are shown due to product improvement, inspect the part you have and provide additional description as necessary.

LIMITED WARRANTY

Norton warrants all Products manufactured by it against defects in workmanship or materials for a period of one (1) year from the date of shipment to Customer.

The responsibility of Norton under this Warranty is limited to replacement or repair of defective parts at Norton's Gainesville, Ga., factory, or at a point designated by it, of such part as shall appear to us upon inspection at such point, to have been defective in material or workmanship, with expense for transportation and labor borne by Customer.

In no event shall Norton be liable for consequential damages arising out of the failure of any Product to operate properly.

Integral units such as gasoline engines, electric motors, transmission, etc., are excluded from this Warranty and are subject to the prime manufacturer's warranty.

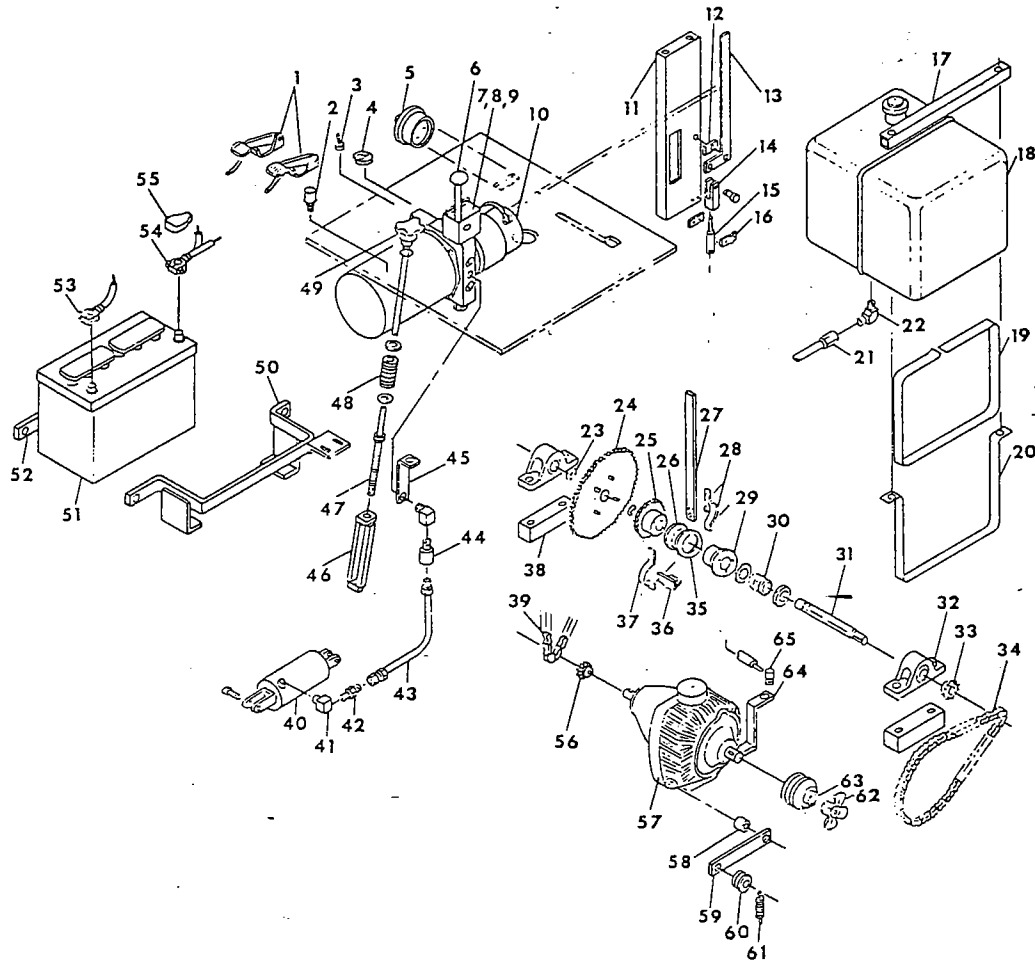
THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED.

PARTS LIST FOR SAWS UP TO SERIAL #LO442

DEPTH STOP ASSEMBLY	1	108253
SPEED CONTROL ARM	1	108205
CONTROL BUSHING	2	130094
THRUST WASHER	1	108227
CHAIN	1	108230
DOUBLE SPROCKET (INCLUDING BUSHING)	1	108272
PIN PLATE	1	108362
REDUCER	1	108210
SMALL SPROCKET	1	108276
CLUTCH LEVER	1	108229
CONTROL ARM	1	108278
CONTROL ARM LINKAGE	1	108951

OBS





ITEM NO.	DESCRIPTION	PART NO.
1	Throttle or Choke Cable	107750
2	Breather Filter	107191
3	Water Pump Switch	107327
4	Engine Switch	104332
5	Depth Indicator Assembly	107344
6	Handle (Part of 10)	107502
7	Switch (Part of 10)	107501
8	Spring (Part of 10)	107500
9	Wear Plate	107843
10	Hydraulic Pump	107109
11	Support Bracket	108455
12	Brake Pad	106379*
13	Handle	108453*
14	Cable End	108451*
15	Cable	108450*
16	Cable Fitting	108452*
17	Spacer	108429*
18	Fuel Tank	107149*
19	Tank Strap Felt	107148*
20	Tank Strap	107147*
21	Fuel Line Assembly	108417*
22	Elbow	107192*
23	Snap Ring	216517*
24	Sprocket	107810*
25	Sprocket	107815*
26	Wear Plate C.I.	108379*
27	Handle	108475*
28	Rear Fork	107805*
29	Adaptor	108377*
30	Spring	108231*
31	Jackshaft	108463*
32	Bearing	227175
33	Sprocket	107257*

ITEM NO.	DESCRIPTION	PART NO.
34	Chain	107258*
35	Wear Plate	108378
36	Bracket	108470*
37	Front Fork	107819*
38	Spacer	108471*
39	Chain	108476*
40	Cylinder	108207
41	Elbow	104200
42	Male Connector	105207
43	Hose	104459
44	Filter	107706
45	Support	106343
46	Clevis Weldment	108481
47	Depth Stop Rod	108234*
48	Spring	200036
49	Knob	107138
50	Battery Bracket	108429
51	Battery	106206
52	Strap	108246
53	Battery Cable Ground	106192
54	Battery Cable Positive	107313
55	Boot	108423
56	Sprocket	108468*
57	Transmission	106344
58	Spacer	108205
59	Idler Bracket	108284
60	Idler Pulley	108283
61	Spring	124228
62	Fan	106396
63	Transmission Pulley	106395
64	Control Arm	108473
65	Cable End	108449